

Requested Patent : GB120462A  
Title: ;  
Abstracted Patent: GB120462 ;  
Publication Date: 0000-00-00 ;  
Inventor(s): ;  
Applicant(s): ;  
Application Number: GBD120462 00000000 ;  
Priority Number(s): ;  
IPC Classification: ;  
Equivalents: ;  
ABSTRACT:

120,462

## PATENT

## SPECIFICATION



*Application Date, Nov. 24, 1917. No. 17,375/17.*

*Complete Left, May 24, 1918.*

*Complete Accepted, Nov. 14, 1918.*

## PROVISIONAL SPECIFICATION.

## Improvements in and relating to Artificial Feet.

We, PAUL SCHIRANZ and ROBERT SCHIRANZ, Surgical Instrument Makers, both of 75, Elm Grove Road, Barnes, London, S.W. 13, do hereby declare the nature of this invention to be as follows:—

The present invention which relates to artificial feet has for its object the provision of a pneumatic device which adapts itself to a certain extent to the unevenness of the ground, and thus acts as a shock absorber, which shock absorber can be kept in working order by the wearer without having recourse to the aid of the manufacturer, all parts subject to wear being standardized.

For a clear understanding of the invention reference is to be had to the following description and accompanying drawing:—

The foot consists of a wooden structure  $f$  which is hollowed out from heel to toe, and such hollowed out part  $f^1$  is covered by a steel sole plate  $f^2$  which is provided with an upstanding hook-shaped flange  $f^3$  adapted to engage a padded ridge  $f^4$  at the toe end of the hollow  $f^1$  and with a pad  $f^5$  on a hook  $f^6$  detachably secured to a pin  $f^7$  in the heel part  $f^8$  of the wooden structure  $f$ , so that said sole plate is prevented from falling out. Between the sole plate  $f^2$  and the top of the hollow  $f^1$  is placed a rubber bag  $g$ , the same being inflated through the valve  $g^1$ . By withdrawing the pin  $f^7$ , the padded hook  $f^6$  is released and the sole plate  $f^2$  can be taken off, allowing of access to the rubber bag  $g$  for the removal thereof.

If the wearer stands or walks on uneven ground, the sole plate is moved upwards and the pneumatic bag  $g$  compressed on the side on which the unevenness occurs. In the event of the bag being punctured and resulting collapse, the sole plate  $f^2$  sinks into the hollow part  $f^1$  of the wooden structure  $f$  of the foot and adapts itself exactly to its shape, the whole forming an ordinary hard foot without endangering the wooden structure.

Dated the 23rd day of November, 1917.

KINGS PATENT AGENCY LIMITED,  
By BENJ. T. KING,  
Director,

Registered Patent Agent,  
165, Queen Victoria Street, London, E.C. 4,  
Agents for Applicants.

## COMPLETE SPECIFICATION.

## Improvements in and relating to Artificial Feet.

We, PAUL SCHIRANZ and ROBERT SCHIRANZ, Surgical Instrument Makers, both of 66, Margaret Street, Oxford Circus, London, W. 1 (formerly of 43, Warbeck Road, Shepherd's Bush, London, W. 6, and 77, Elm Grove Road, Barnes, London, S.W. 13), do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention which relates to artificial feet, has for its object the provision of a pneumatically operated device which adapts itself to a certain extent to the unevenness of the ground and acts as a shock absorber, and which, in the event of the pneumatic means failing, conforms to the shape of an ordinary hard foot.

The device consists of a metal sole plate slidably mounted in a recess in the lower part of the foot, and an inflatable bag interposed between said sole plate and the top of the recess, the shock absorber as above set forth being kept in working order by the wearer without having recourse to the manufacturer, all parts subject to wear being standardized.

For a clear understanding of the invention reference is to be had to the following description and the drawing accompanying the Provisional Specification, said drawing being a longitudinal sectional view of a foot embodying the present invention.

According to the invention, the foot consists of a wooden structure  $f$  which is hollowed out from heel to toe, and such hollowed out part  $f^1$  is covered by a steel sole plate  $f^2$  which is provided with an upstanding hook-shaped flange  $f^3$  adapted to engage a padded ridge  $f^4$  at the toe end of the hollow  $f^1$ , and with a pad  $f^5$  on a depending hook  $f^6$  detachably secured to a pin  $f^7$  in the heel part  $f^8$  of the wooden structure  $f$ , so that said sole plate is prevented from falling out. Between the sole plate  $f^2$  and the top of the hollow  $f^1$  is placed a rubber bag  $g$ , the same being inflated through the valve  $g^1$ . By withdrawing the pin  $f^7$  the padded hook  $f^6$  is released and the sole plate  $f^2$  can be taken off, allowing of access to the rubber bag  $g$  for the removal thereof.

If the wearer stands or walks on uneven ground, the sole plate  $f^2$  is moved upwards and the pneumatic bag  $g$  compressed on the side on which the unevenness occurs. In the event of the bag being punctured, with resulting collapse, the sole plate  $f^2$  sinks into the hollow part  $f^1$  of the wooden structure  $f$  of the foot and adapts itself exactly to its shape, the whole forming an ordinary hard foot without endangering the wooden structure.

Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that what we claim is:—

In artificial feet, a shock absorber characterized by the combination of a metal sole plate slidably mounted in a recess in the lower part of the foot, an upstanding hooked flange to said plate, a padded ridge at the toe end of the foot, a depending and padded hook detachably mounted in the heel portion of the foot, the upstanding hooked flange of the sole plate engaging said padded ridge and the pad of the depending and detachable hook, and an inflatable bag interposed

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between said sole plate and the top of the recess in the foot, as described herein  
and in accordance with the drawing accompanying the Provisional Specification.

Dated the 24th day of May, 1918.

KINGS PATENT AGENCY LIMITED,  
By BENJ. T. KING,

Director,

Registered Patent Agent,  
165, Queen Victoria Street, London, E.C. 4,  
Agents for Applicants.

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Redhill: Printed for His Majesty's Stationery Office, by Love & Malcolmson, Ltd.—1918.

[This Drawing is a reproduction of the Original on a reduced scale]

